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Tuesday, November 15, 2016
at 8:00 A.M. U.S. Eastern Time
OR UPON DELIVERY

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"Assessing the Economy's Recent Progress"

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Federal Reserve Bank of Boston

Portland Regional Chamber of Commerce

Portland, Maine
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Good morning. I would like to thank the staff and members of the Portland Regional Chamber of Commerce for having me here today to share my views on the economy. At the outset, let me note as I always do that the views I express today are my own, not necessarily those of my colleagues at the Federal Reserve's Board of Governors or on the Federal Open Market Committee (the FOMC).

The U.S. economy has continued to gradually improve. Payroll employment growth of 161,000 jobs in October and the unemployment rate at 4.9 percent are two indications that we are at or close to most economists' estimates of "full employment" in the economy. My own estimate of the level of unemployment associated with full employment is 4.7 percent – only two tenths less than the current unemployment rate. It has been my expectation that if trends continue, the remaining gap would close next year.

I would add that there has also been continued improvement in the outlook for inflation, which has been below the Federal Reserve's 2 percent target for much of the recovery. While our 2 percent target involves *total* inflation, it is useful to also examine the "core" inflation measure that excludes volatile food and energy for a gauge on underlying inflation trends. Core inflation (measured using the Personal Consumption Expenditures or PCE price index[1]) fluctuated between just 1.3 and 1.4 percent last year, but now stands at 1.7 percent. Should recent exchange rate stabilization and higher oil prices continue, I would expect both total and core PCE inflation to be at or near the Federal Reserve's 2 percent target in 2017.

With the economy close to full employment and inflation nearing the Fed's target, it was not surprising that the futures market's probability of a tightening in December has been high – in the vicinity of 75 percent – with some volatility around the election. Absent significant negative economic news over the next month, the market's assessment of the likelihood of tightening in December seems plausible.

In my view, the goal should be to have a continued, sustained economic recovery. To achieve that, we must consider the risks inherent in waiting too long to gradually remove monetary accommodation. I would much prefer that tightening be gradual, and that policymakers try to avoid circumstances in which we need to tighten more quickly. My concern is that more rapid tightening, were it necessary, could risk disrupting the recovery that is now attaining both elements of the Federal Reserve's dual mandate – full employment and an inflation target consistent with price stability.

The Recent Outlook for Labor Markets

Now I would like to explore with you some of the subtleties and nuances I am seeing in labor markets.

Figure 1 shows the recent movement of the unemployment rate. The horizontal lines define the central tendency[2] of U.S. monetary policymakers' expectations for the unemployment rate in the long run. Note that over the last year the unemployment rate has remained in the narrow band defined by that range. My own 4.7 percent estimate of full employment places me at the lower end of that range. If we dip below 4.7 percent unemployment, we would be running the economy somewhat hot, and probing for how low the unemployment rate could go consistent with our inflation target.

Looking ahead to the end of 2017, the blue dot represents the unemployment rate that I expect at the end of next year – 4.6 percent. It is also the median unemployment rate expected by members of the FOMC, and is the Blue Chip Consensus forecast. The implication is that many forecasters have been expecting us to slightly overshoot the lower bound of the central tendency of full employment estimates by the end of next year.

Of course, the outlook for unemployment is in part tied to the outlook for real GDP growth next year. The Survey of Professional Forecasters expects next year's growth to be higher than this year and somewhat above 2 percent, as shown in **Figure 2**. My own estimate of the sustainable growth rate for the economy is about 1.75 percent, so the growth forecast above that level implies that we are likely to see some further tightening in labor markets.

Figure 3 shows the percent change from a year earlier for the labor force. The labor force is defined as the sum of those who are currently employed and those who are searching for employment (that is, are unemployed). When employment grows faster than the labor force, the unemployment rate goes down – which has been the pattern for most of this economic recovery. However, over the past year the unemployment rate has remained stable, despite relatively robust payroll employment growth. This is in part explained by relatively strong growth in the labor force over the past year.

Many of us focus on the net increase in employment in the monthly report, which of late has averaged 100,000 to 200,000 jobs per month. But that net change is the product of a much larger flow of workers into and out of employment and unemployment.

For example, the labor force will grow if people not in the labor force – such as students, retirees, or discouraged workers – decide to enter the labor force, actively seeking work. **Figure 4** displays the number of people flowing from out of the labor force into employment, as a share of the labor force. Over the recovery period, there has been a dramatic increase in this share as the figure shows, accounting for much of the growth in the labor force over that period. But more recently there has been a leveling off of these flows, albeit at relatively high levels.

However, this dynamic does not account for the levelling off of the unemployment rate over the past year. **Figure 5** focuses on labor market transitions over the past two years, and shows that, more recently, the number of people flowing into employment after being out of the labor force has leveled off. Rather, the levelling off of the unemployment rate in the last year seems to reflect the recent decline in the number of people flowing in the opposite direction – that is, fewer people are leaving employment to step out of the labor force.

A reason to expect that the growth in the labor force may not be as robust going forward is the continuing impact of the aging of the workforce. **Figure 6** shows the share of the labor force between the ages of 25 and 54, which has been declining, while the share of the labor force between ages 55 and 65 has been rising. As more baby boomers reach retirement age, we should see a continued increase in the number of workers shifting from employed to retired and thus out of the labor force.

Reflecting that ongoing demographic transition, **Figure 7** shows that the labor force participation rate has been declining for more than 15 years. While the labor force participation rate leveled off recently, these demographic changes will almost surely continue, and make it unlikely that the labor force will grow as quickly as recently experienced.

It is certainly good news that the labor force has grown more rapidly of late, and that workers have been drawn from out of the labor force into employment. But this trend is likely to be limited going forward by the demographic changes in the workforce. As a result, if the economy grows even somewhat faster than potential, as most forecasters are expecting, the corresponding increases in employment are likely to be accompanied by further declines in the unemployment rate. Since the unemployment rate is already close to its full employment level, further declines would increase the risk of overshooting what is likely to be a sustainable unemployment rate in the longer run. That outcome could lead at some point to the need for a more rapid removal of monetary policy accommodation.

Wages and Prices

As labor markets have tightened recently, we have seen signs in many indicators that wages and prices are rising in response. **Figure 8** shows that core PCE prices have been rising – 1.7 percent in the most recent year-over-year reading, which is just three tenths shy of our 2 percent target for total inflation. The Boston Fed forecast has us reaching 2 percent core PCE inflation next year, slightly above the estimates of the median Summary of Economic Projections (SEP) forecast for core PCE.

Figure 9 shows the average probabilities that Survey of Professional Forecasters participants assign to core PCE falling into each of 10 ranges in 2017, as of the fourth quarter of 2016. The chart shows that on average, forecasters assign a significant probability (70 percent) to inflation falling in a range near 2 percent – between 1.5 percent and 2.4 percent.

Figure 10 shows the forecast for total PCE inflation. Total PCE inflation is still being held down by the impact of earlier declines in oil prices and the rising value of the dollar. As these effects have subsided, total PCE has been rising. The Boston forecast is currently at 2 percent for the end of 2017 while the median SEP is slightly lower. While total PCE could still be impacted by shocks, **Figure 11** shows that since the beginning of 2016, the exchange rate has been roughly stable, while oil prices have risen on balance. Thus the combined effects of these two factors should act to increase inflation relative to previous years.

There is also evidence that wage pressures are beginning to show up more convincingly in the data. **Figure 12** shows that average hourly earnings have been gradually rising as labor markets have tightened. Over the past year average hourly earnings have risen 2.8 percent, below what we saw prior to the Great Recession but above the 2 percent growth we experienced earlier in the recovery.

In sum, inflation appears at last to be trending toward the Federal Reserve's 2 percent target for total inflation. The Boston Fed forecast expects *both* the total and core PCE inflation measures to hit 2 percent over the next year. Progress to date and the expectation of further progress likely explain, in part, why markets have priced in a high probability of a rate hike in December.

Concluding Observations

At the September FOMC meeting, I voted to increase interest rates, arguing that if we waited too long to raise rates we could place at risk the sustainability of the recovery. I was concerned that waiting could risk the need to raise rates faster and more than desired at some point, and I felt that this was a risk that could be reduced by removing a bit of accommodation earlier. At the FOMC meeting earlier this month, however, I felt that the changes in the FOMC statement were well aligned with the notion (and the market perception) of a high likelihood of tightening in December. As a result, I did not dissent.

Going forward, I will be attuned to assessing whether my forecast – continued progress toward achieving our inflation target and employment goals – is on track.

Thank you.

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[1] The core PCE price index is defined as personal consumption expenditures (PCE) prices excluding food and energy prices. The core PCE price index measures the prices paid by consumers for goods and services without the volatility caused by movements in food and energy prices to reveal underlying inflation trends. Source: Bureau of Economic Analysis. See http://www.bea.gov/faq/index.cfm?faq_id=518

[2] The central tendency excludes the three highest and three lowest projections.